

CLAIMS

1. A pulp moulding process including the steps of preparing pulp stock; forming pulp products by means of a forming die; and delivering the pulp products to a down-line facility, the process being characterized in that wet pulp products are transferred from the forming die by means of a first die element of a heated transferring die-and-heated pressing tool arrangement, comprising a first die element and a second die element, having a mould cavity therebetween, simultaneously pressed and dried in the heated transferring die-and-heated pressing tool arrangement, and transferred to the down-line facility by the second die element as pressed, dried pulp products.
2. A pulp moulding process according to claim 1, including the step of using a heated fluid medium for providing heat in the pressing and drying step.
3. A pulp moulding process according to claim 2, wherein the heated fluid medium is steam.
4. A pulp moulding process according to claim 2, wherein the heated fluid medium is thermal oil.

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5. A pulp moulding process according to claim 4, wherein the thermal oil is maintained at a negative gauge pressure.

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6. A pulp moulding process according to any of the preceding claims, including at least one of the steps of forcing steam generated during the pressing and drying step in one direction through the in-mould wet product; and venting the generated steam to the atmosphere.
7. A pulp moulding process according to any of claims 1 - 4, including at least one of the steps of forcing steam generated during the pressing and drying step in one direction through the in-mould wet product; and scavenging the steam under vacuum.
8. A pulp moulding process according to any of the preceding claims, including at least one of the steps of forcing heated gas, such as air, through the in-mould wet product at high pressure; and venting the steam generated during the in-mould pressing and drying step to the atmosphere.
9. A pulp moulding process according to any of claims 1 - 7, including at least one of the steps of forcing heated gas, such as air, through the in-mould wet product at high pressure; and scavenging the steam generated during the in-mould pressing and drying step under vacuum.

10. A tool arrangement for use in a pulp moulding process including the steps of preparing pulp stock, forming wet products by means of a forming die, transferring the wet products from the forming die by means of a first die element of a heated transferring die-and heated pressing tool arrangement comprising a first die element and a second die element, having a mould cavity therebetween, simultaneously pressed and dried in the heated transferring die-and-heated pressing tool arrangement, and transferred to the down-line facility; the tool arrangement being characterised in having a male part and a female part, at least one part being provided with a primary fluid passage for receiving a heating fluid therethrough and at least one part being provided with at least one vent so as to allow steam generated during an in-mould pressing and drying step to escape therethrough.
11. A heated transfer die-and-pressing tool arrangement as claimed in claim 10, characterized in that at least one of the male part and female part comprises a die element mounted on a plate, having a plenum chamber incorporating the primary fluid passage.
12. A heated transfer die-and-pressing tool arrangement as claimed in 10 or 11, characterized in being provided with at least one secondary fluid passage for

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receiving pressurized gas, such as air, therethrough, the secondary fluid passage
being orientated so as to communicate gaseously with the vent to force the

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pressurized gas and the steam generated during the in-mould drying step in one direction through the in-mould wet product.

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13. A heated transfer die-and-pressing tool arrangement as claimed in any of claims 10 - 12, characterized by being provided with a set of secondary fluid passages and a set of vents, the set of secondary fluid passages and the set of vents being staggered relative to each other so as to enhance the substantially uniform flow of pressurized gas through the wet product.

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14. Press drying equipment as claimed in claim 10, characterized by the heated transfer die-and-heated pressing tool arrangement being rotary so as to enable rotary transfer and drying of a wet product between a forming die and a down line facility.

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